

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB2004/001265

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC 7 C10G11/22 C10G50/00

C10G57/00

C10G57/02

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 C10G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 001 001 A (NOVA CHEM INT SA) 17 May 2000 (2000-05-17) claims 1,12,13; figures 1B,2B page 2, paragraph 7 page 4, paragraphs 28,32 page 5, paragraph 40 -----	1-7
X	US 5 981 818 A (PURVIS DAVID ET AL) 9 November 1999 (1999-11-09) cited in the application column 2, line 62 - column 3, line 10 column 3, line 65 - column 4, line 8 column 4, lines 23-27 column 9, lines 11-17 column 9, line 65 - column 10, line 1 column 10, lines 15-22 column 11, lines 22-25 ----- -----	1-7

Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

\* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- \*&\* document member of the same patent family

Date of the actual completion of the international search

20 July 2004

Date of mailing of the international search report

20.08.04

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel: (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Harf, J

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB2004/001265

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2 325 237 A (SNAM PROGETTI) 18 November 1998 (1998-11-18) figure 1; example 1; tables III, IV page 9, lines 19-24 page 10, lines 17-23 page 12, lines 11-17 page 16, line 2 - page 17, line 4	8
A	US 3 987 119 A (KURTZ BRUCE E ET AL) 19 October 1976 (1976-10-19) claims 1,2; figure Column 1, lines 64-67 Column 2, lines 7-17 Column 3, lines 16-21	1-7

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/GB2004/001265

### Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3.  Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

#### Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/SAV 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-7

process for producing an olefin derivative comprising (i) cracking a paraffinic feed; (ii) reacting the obtained first dilute olefins stream to produce a first olefin derivative stream and (iii) autothermally cracking the obtained second dilute olefins stream comprising alkanes and at least 5 mol-% unreacted olefins

---

2. claim: 8

process for producing an olefin derivative comprising (i) cracking a paraffinic feed; (ii) reacting the obtained first dilute olefins stream to produce a first olefin derivative stream ;(iii) reacting the obtained second dilute olefins stream comprising alkanes and at least 5 mol-% unreacted olefins to produce a second olefin derivative stream and (iv) recycling a stream comprising unreacted alkanes and less than 5 mol-% olefins to cracking step (i)

---

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB2004/001265

Patent document cited in search report	Publication date		Patent family member(s)		Publication date
EP 1001001	A 17-05-2000	US EP	6111156 A 1001001 A1		29-08-2000 17-05-2000
US 5981818	A 09-11-1999	NONE			
GB 2325237	A 18-11-1998	IT CA NL NL US	MI971129 A1 2235180 A1 1009182 C2 1009182 A1 6011191 A		15-11-1998 15-11-1998 19-05-1999 17-11-1998 04-01-2000
US 3987119	A 19-10-1976	BE CA DE FR GB IT JP NL	821397 A1 1037971 A1 2449563 A1 2248254 A1 1435069 A 1024701 B 50070307 A 7413046 A		17-02-1975 05-09-1978 30-04-1975 16-05-1975 12-05-1976 20-07-1978 11-06-1975 25-04-1975